# CHAPTER 3 ROADWAY

### 3-1. Roadway.

- *a. Inspection.* The roadway shall be inspected for the following defects:
  - (1) Ballast/subgrade pumping.
  - (2) Erosion of embankments and cut slopes.
  - (3) Enbankment sliding or slippage.
  - (4) Potential slope stability problems.
  - (5) Settlement at approaches to bridge ends.
  - (6) Washouts under the track.

If any of these are present, remedial action is required within a time frame necessary to prevent damage to the track structure.

b. Hazardous conditions. Any condition presenting a hazard to the safe movement of trains shall be corrected prior to the first movement over that location.

#### 3-2. Drainage.

- a. General.
- (1) A well-drained roadbed is essential to good track maintenance.
- (2) Any attempts to divert water onto the roadway or to obstruct ditches or drainage structures shall be reported immediately to the DEH (BCE).
- (3) Drains, ditches, and other open drainage structure shall be protected to prevent hazards to personnel.
- b. Size and design. Ditches and other drainage structures (culverts, drains, and drop inlets) shall be of sufficient size and construction to handle the expected flow of water, in accordance with TM 5-820-4/AFM 88-5, Chap. 4.
- c. Obstructions. Ditches and drainage structures shall be maintained to allow the free passage of water. At locations where flow is obstructed or otherwise inadequate, remedial action is required. During construction operations adjacent to the track structure all ditches and other drainage structures shall be kept unobstructed.
  - d. Inspection.
- (1) Inspection and cleaning of drainage structures and channels shall be performed at least anually.
- (2) Inspections of ditches and other drainage structures during and after heavy rains are recomended to ensure that these structures are adequate to carry the runoff.

- (3) Drainage ditches and structures shall be inspected for the presence of:
  - (a) Brush.
  - (b) Drift
  - (c) Excessive ice and snow.
- (d) Other obstructions which may interfere with the flow of water.

If any of these are present, immediate remedial action is required to prevent damage to the roadway and track structure.

(4) Particular attention shall be given to drainage conditions at turnouts, rail crossings, road crossings, bridge ends, and all locations where conditions may restrict adequate drainage.

#### 3-3. Vegetation.

- *a.* Vegetation shall be controlled so that it does not:
- (1) Grow within the ballast section or obstruct ballast drainage.
- (2) Interfere with adequate visibility at grade crossings.
- (3) Obstruct visibility of location markers, switch position indicators, signs, or signals.
  - (4) Obstruct drainage.
- (5) Interfere with the safe operation of trains.
  - (6) Prevent proper track inspection.
  - (7) Present a fire hazard to timber structures.
- (8) Interfere with personnel walking within 8 fees of the track centerline.
  - (9) Brush the sides of rolling stock.
  - b. Vegetation interference.
- (1) At locations where vegetation interferes with the effective inspection of the track, train operations shall not exceed 10 mph until the vegetation is removed and a thorough track inspection is performed.
- (2) At locations where vegetation interferes with train operations, operations shall not exceed 5 mph until the vegetation is removed and an additional track inspection is performed.
- c. Vegetation control. Undesirable vegetation growing within the roadway shall be removed by chemical or manual means. For Army Track, chemical vegetation control shall be accomplished as prescribed by AR 420-76, TM 5-629, and TM 5-630. For Air Force track, chemical vegetation control shall be accomplished as prescribed by AFR 91-21, and AFM 91-19.

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d. Desirable vegetation. Vegetation may be planted and grown on the slopes of cuts and fills and in other locations within the roadway to prevent

erosion. The growth of desirable vegetation should be controlled to meet the requirements of paragraph 3-3a.